REMARKS

Applicant appreciates the Examiner's attention to the above referenced application. Reconsideration of the application is respectfully requested. Claims 1-30 were rejected. Applicant has amended claim 1, 3-10, 14, 22, 24-29 and canceled claim 23. Claims 1, 3-22, 24-29 are now pending, of which claims 1, 7, 14, and 22 are independent.

35 U.S.C. § 103 Rejection of the Claims

Claims 1 and 3-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu et al. (US 2004/0103391 A1). Applicant has amended claims 1, 3-10, 14, 22, 24-28 and canceled claim 23. Applicant respectfully traverses this rejection, which should be withdrawn for at least the reasons set forth herein.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka,* 490, F.2d 981, 180 USPQ 580 (CCPA 1974, M.P.E.P. §2143.03).

Claims 1, and 3-6

Applicant's amended claims 1 and 3-6 call for performing a checking on an object to detect a hotspot in the first type checking, and in response to detecting the hotspot, performing a first type checking between a class of the object and a target class specified by the hotspot to ***assert an indicator in an object header of the object that is to indicate a success of the first type checking at the hotspot in response to detecting the success***.

Applicant respectfully submits that Wu does not meet the requirements of an obviousness rejection. Wu neither teach nor suggest performing a checking on an object to detect a hotspot in the first type checking, and in response to detecting the hotspot, performing a first type checking between a class of the object and a target class specified by the hotspot to assert an indicator in an object header of the object that is to indicate a success of the first type checking at the hotspot in response to detecting the success.

Applicant respectfully submits that Wu may relate to a method of identifying a type of a software object (claim 1). More specifically, Wu appears to disclose that an object header can be encoded based on the type of the object associated with the header (para. 0029). Further, Wu seems

to merely disclose that first bit field may correspond to a first object type and a second bit field may correspond to a second bit field and the bit field corresponding to the type of the object to which the header is associated is set to a logical one (para. 0029). Accordingly, a bit field in the object header of Wu appears to indicate a corresponding type of the object, rather than an indicator that is to indicate a success of type checking at the hotspot.

Further, Fig. 6, step 304 of Wu, that the official action relies upon, merely appears to disclose comparing the encoded data with a value associated with a target object type by logically ANDing the type mask and the software object (para. 0036 and claim 12). Applicant respectfully indicates that Fig. 6, step 304 of Wu seems to have nothing to with asserting an indicator in the object header. Moreover, Wu appear to disclose the processor returns control to the routine that called for the type testing if the processor determines that the result of the logical ANDing is not equal to zero (para. 0036), that is also different from asserting an indicator in an object header to indicate a success of type checking.

As mentioned above, since Wu neither teach nor suggest performing a first type checking between a class of the object and a target class specified by the hotspot to assert an indicator in an object header of the object that is to indicate a success of the first type checking at the hotspot in response to detecting the success as required by claims 1 and 3-6, Wu fails to arrive at the invention of claims 1 and 3-6.

Withdrawal of the present rejection is respectfully requested.

Claims 7-13

Claims 7-13 calls for a processor to detect a hotspot in a first type checking for a class of an object, and perform a second type checking between the object class and a target class specified by the hotspot to ***indicate by an indicator in a header of the object a result of the second type checking at the hotspot***.

As mentioned above with regard to claims 1 and 3-6, Wu fails to disclose an indicator that is to indicate a success of type checking at the hotspot or assert an indicator in the object header to indicate a success of type checking. Accordingly, Wu neither teach nor suggest a processor to detect a hotspot in a first type checking for a class of an object and perform a second type checking between the object class and a target class specified by the hotspot to indicate by an indicator in a header of

the object a result of the second type checking at the hotspot, as required by claims 7-13, Wu fails to arrive at the invention of claims 7-13.

Withdrawal of the present rejection is respectfully requested.

Claims 14-21

Claims 14-21 calls for performing a second type checking between the class of the object and a target class specified by the hotspot ***to indicate by a bit indicator in a header of the object a result of the second type checking at the hotspot***.

As mentioned above with regard to claims 1 and 3-6, Wu fails to disclose an indicator that is to indicate a success of type checking at the hotspot or assert an indicator in the object header to indicate a success of type checking. Accordingly, Wu neither teach nor suggest performing a second type checking between the class of the object and a target class specified by the hotspot to indicate by a bit indicator in a header of the object a result of the second type checking at the hotspot, as required by claims 14-21, Wu fails to arrive at the invention of claims 14-21.

Withdrawal of the present rejection is respectfully requested.

Claims 22, 24-29

Claims 22 and 24-29 call for the dynamic compiler further to regenerate second native code that calls a second type checking for the hotspot to ***indicate a type checking result*** between a class of the object and a target class specified by the hotspot ***by an bit indicator in an object header of the object***.

As mentioned above with regard to claims 1 and 3-6, Wu fails to disclose an indicator that is to indicate a success of type checking at the hotspot or assert an indicator in the object header to indicate a success of type checking. Accordingly, Wu neither teach nor suggest the dynamic compiler further to regenerate second native code that calls a second type checking for the hotspot to indicate a type checking result between a class of the object and a target class specified by the hotspot by an bit indicator in an object header of the object, as required by claims 22 and 24-29 14-21, Wu fails to arrive at the invention of claims 22 and 24-29.

Withdrawal of the present rejection is respectfully requested.

CONCLUSION

Applicants respectfully request reconsideration in view of the remarks and amendments set forth above. If the Examiner has any questions, the Examiner is encouraged to contact the undersigned at (503) 439-8778. Please charge any shortage of fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such account.

Respectfully submitted,

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